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GDR STRESSES NUCLEAR RESEARCH

Die Welt
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Berlin, 26 April 1954 -- The first atomic pile in the GDR is being built at Aue, Saxony. The Soviet Union, which has undertaken the construction in cooperation with the GDR, will use the plutonium produced there for atomic research. The radioactive isotopes will be used in the GDR for technical and medical purposes.

The agreement is the result of conversations held in Moscow in September 1953 by Professor Friedrich, president of the GDR Academy of Sciences, and Professor Lohmann, secretary of the Faculty of Medical Science at the academy.

Nuclear research is also being pushed in other parts of the GDR. At the Institute for Medicine and Biology in Berlin-Buch, electron acceleration, separation of isotopes, and X-ray spectography are being studied under the direction of Professor Friedrich. A 2-million-volt installation is available there for this purpose. The unit was delivered by the Transformatoren- und Roentgenwerk Dresden (Dresden Transformer and X-ray Works).

At the Institute for Solid State Research in Berlin-Buch, Professor Moeglich, the director, is conducting experimental radiation measurements with cadmium and sulfur cells. Atomic and X-ray radiation measurements are being studied by Dr Herfurth, institute member, while Dr Dornberger is studying fine structure and the crystalline structure of matter.

At the Niesdorf Institute near Zeuthen, Dr Laniel and Dr Beyer, under the direction of Dr v.d. Schulenburg, are investigating electron acceleration, nuclear fission, separation of isotopes, electron diffraction, and X-ray microscopy. This institute also has a 2-million-volt direct-current installation.

Cosmic and atomic radiation are being studied at the Astrophysical Observatory in Potsdam, in collaboration with the cosmic-radiation stations at Kuehlungsborn on the Baltic Sea and at Lindenberg near Berlin, as well as with the Physical Institute of Martin Luther University at Halle. The Potsdam Observatory is under the direction of Professor Wempe. Professor Mie is primarily interested in the measurement of guided radiation, while Professor Schmellenmeier is conducting electron-acceleration experiments, for which purpose he has the use of a 3-million-electron-volt instaliation. The research stations at Kuehlungsborn and at Lindenberg are studying cosmic radiation.

At the Physical Institute of the University of Halle, Professor Messerschmidt is working on cosmic-ray measurements with focused bearings in a shaft 10 meters deep. The radiation of radioactive clouds in the stratosphere, resulting from the explosion of atomic bombs, is registered at the institute on a permanent basis. Thus, the explosion of the Soviet hydrogen bomb on 12 August 1953 was registered 6 hours later.

Professor Eckart, director of the Physical Institute of the University of Jena, has been working for some time on the development of an air betatron. However, the vacuum electrons did not react as hoped, and Professor Eckart and his assistants are now working on the problem of a radiation transformer with a strength of 10 million electron volts.

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The 10-million-electron-volt betatron in Dresden is the largest such unit to be operated successfully thus far in the GDR. Professor Eckart is currently using this installation for radiation measurements. At the same time, work is proceeding on the construction of electron accelerators (10-million-electron-volt betatron, 20-million-electron-volt betatron, cyclotron, synchroton, and Van de Graaf generator) at the Transformatoren- und Roentgenwerk Dresden, under the direction of Dr Winter. The units are scheduled for installation at the nuclear-research laboratory currently under construction in Bad Weisser Hirsch near Dresden. According to reports, the laboratory is to be headed by Manfred v. Ardenne, a German scientist who is shortly to return from the Soviet Union.

At the Radebeul branch of the Transformatoren- und Roentgenwerk Dresden, an institute for the development of radiation measuring devices has been established, under the direction of Engineer Frommhold. These devices are to be based on the tube-counter principle. Further, Professor Kunze, director of the Physical Institute of the University of Rostock, is interested in the development of an electron-counter tube. The Freiburg Mining Academy has established its own department for the radioactive survey of geological strata. Up to now, it has been possible to locate radioactive strata in borings 3,000 meters deep. Exploitation is to be carried out by the Soviets.

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